Hy-tex

Brick Scales and Tables

2 8/8″

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Face Brick Tables

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St. Louis

Face Brick Tables

The accompanying five tables of brick-work dimensions cover the great majority of cases that may come up for treatment. Each table, as will be seen, is based on a unit which varies with the width of the mortar joint, increasing by steps of $\frac{1}{8}$ inch up to 1 inch. Tables I and II deal with simple vertical and horizontal units; Tables III, IV and V show dimensions when using the compound units of the horizontal courses in Flemish and Garden Wall Bonds.

They are all figured out on the basis of standard sized rough textured face brick, as officially established by The American Face Brick Association, which is, "approximately" 8"x2¼"x3¾". The smooth brick is 8"x2¼"x3⅞", differing from the rough brick only $\frac{1}{8}$" in width. It is, however, very important to keep in mind that clays can not always be made to burn to an exact dimension, so that the architect should carefully measure the particular brick he uses before adding the chosen mortar joint or joints, in order to determine the exact dimension of the unit he is to employ. If he is going to use a brick of mingled shades, it would be well to find the average dimension of the range before adding the mortar joint or joints.

Once having established this unit dimension for any particular piece of work, it will be easily found in the unit line at the head of the table, and this will give the column to be used in the calculations. Thus if you found the brick to run 2⅜" instead of 2¼" high, and you wanted to use a ⅜" joint, your vertical unit would be 2¾", which you would find in the unit line under the ½" joint. Of course, the joint you used would be ⅜" just the same. Or if you were going to use two Stretcher Garden Wall Bond with a ½" joint and found your brick 7⅞" in length by 3¾" in width, you would have a unit of 2x7⅞" +3¾+3x½" or 21"=1'-9". While this exact dimension can not be found in the unit line, a very near approach or the 1'-8⅞" unit, under the ⅜" joint, will serve, by making a correction of 1" for every eight units of length. As, however, this means a dimension of 14'-0", the correction would take care of itself by an imperceptible modification of the joint width.

The use of anything less than a header at the quoin should be avoided if possible, though it may serve at openings where the frame or jamb gives it apparent support.

In laying out brickwork, it is very desirable for satisfactory results, to adjust all horizontal dimensions, so as to come out in a systematic, symmetrical manner as shown in our illustrations.

By consulting the tables, you will find in the proper unit column the exact multiple of brick units which equals or approximates the dimension you have under consideration. If the largest dimension given in the table is less than your dimension, subtract it or, if necessary, its double from your dimension, so that the remainder will come within the table.

If, in any given case, the dimension on your drawings approximates closely that given in the table, the difference can easily be taken up in the mortar joints so as not to destroy the apparent uniformity of the joints in the wall. If the difference is too great for this, it will be better to make a slight change in the dimensions on your drawings. The change at most will be so small as to make no appreciable difference in the building, but it will greatly aid in securing a workmanlike effect in the appearance of the brickwork.

Adjusting vertical dimensions will present no difficulties at all, as the units are so small and constantly uniform. Nor will horizontal courses prove troublesome, unless you are desirous of working out some particular bond pattern uniformly at both sides of the dimension. In that case, a little care must be used in laying out the work. In such bonds as Flemish and Garden Wall, it will be found that some *fraction* of a unit will always have to be added to any exact multiple of units to bring out the right result. Subtract this fraction from your dimension before consulting the table to find the number of whole units. The diagrams suggest possible solutions.

The first thing to do, in laying out any given area in the field, is to establish the base course or courses as a key for the remainder of the work. In Running, English, or Common Bond, one course is sufficient to set the pace for the rest. But in English Cross, Dutch, Flemish and Garden Wall, two or more courses will be necessary to show the cycle of change. Establish the treatment of your corner, then find the fraction over whole units, if any, and after subtracting it from your horizontal dimension, you will have the remainder for comparison with the table.

It is suggested that after the bond has been worked out, a record of the bottom or starting course or courses be placed on the elevations to assist the mason in

beginning the work, and to be assured that the bond will work out at openings and corners as wished.

In case of pattern work, with large or small units, center its center unit, horizontally and vertically, on the area concerned, in order to lay out properly the borders of the work, or to make the pattern end, both laterally and vertically, in a symmetrical manner.

Perhaps the simplest way is to draw a unit of the chosen pattern to scale and lay it on your elevations. The border dimensions will then easily be found, that is, it will show how the pattern ends at top and bottom and corners or openings.

As all diamond brick patterns, which are the most frequently used, may be enlarged or reduced in length by steps of a header, or one-half brick, which always involves an addition or subtraction of two courses in height, it will be an easy matter to work in any pattern of this kind you want, except in case of narrow spaces. Here simple devices of alternating stretchers, headers, and one-quarter and three-quarter brick may be arranged with pleasing effects, as Diagrams 1-11 may suggest.

There is no end to brick patterns; and when you use the limitless variety of textures, color tones, and mortar joints, the possibilities are almost infinite. Our booklet entitled, *Bonds and Mortars in the Wall of Brick* will prove very helpful. Send for a copy.

Hy-tex Products and Service

"Hy-tex Brick" is a designation that means standard of quality, both in the product itself and in the service given, and represents the widest variety of color tone and texture obtainable in Face Brick.

SMOOTH TEXTURES

1. Hy-tex smooth brick are justly celebrated not only for their perfection of form but for the wide variety of shades they offer in grays, whites, creams, buffs, browns, reds, bronzes, mahoganies, and ironspots.

2. Hy-tex Sand Mold brick, which may be regarded as semi-smooth in texture show a very rich and wide range of red, brown, and blackish tones.

3. Hy-tex Golden and Ivory Salt Glaze brick are most desirable because of their durability, cleanliness, and beauty, and are used for interior work to secure sanitary conditions and for exterior walls as proof against city smoke and dust.

4. Hy-tex Equitable Grays with their clear, light-toned, imprevious surface are of fire clay and especially suitable in work of a monumental character, where they harmonize admirably with granite, marble, or stone base or trimmings.

5. Hy-tex Enamel brick are unexcelled in quality and durability by any similar brick on the market of domestic or foreign manufacture. They are absolutely opaque and will not craze, peel, or discolor under the severest climatic conditions. They come in whites, creams, greens, blue, and opaque and transparent browns.

ROUGH TEXTURES

Hy-tex brick of this character cover the whole range from soft matte surfaces, horizontally or vertically scored, to the more pronounced weatherproof and oak bark textures. In color, they run through a great variety of shades in reds, browns, gun metals, blues, greens, purples, creams, grays, and buffs, and are offered either in kiln run mixtures or sorted to shade.

SERVICE

The highest quality of service is made possible by our 22 plants and 13 branch offices, together with numerous selling agencies throughout the country; so that we can assure the architect or builder, wherever he may be, that he will get what he wants and must have—PROMPT, EFFICIENT AND RESPONSIBLE SERVICE.

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Brick Tables

VERTICAL DIMENSIONS OF FACE BRICKWORK
Unit=One Brick and Bed Joint (2¼"+Joint)*

Table I

| No. of Brick Courses	1/8 Inch Feet	Inches	1/4 Inch Feet	Inches	3/8 Inch Feet	Inches	1/2 Inch Feet	Inches	5/8 Inch Feet	Inches	3/4 Inch Feet	Inches	7/8 Inch Feet	Inches	1 Inch Feet	Inches	No. of Brick Courses
Unit		2⅜		2½		2⅝		2¾		2⅞		3		3⅛		3¼	Unit
2		4¾		5		5¼		5½		5¾		6		6¼		6½	2
3		7⅛		7½		7⅞		8¼		8⅝		9		9⅜		9¾	3
4		9½		10		10½		11		11½	1	0	1	0½	1	1	4
5		11⅞	1	0½	1	1⅛	1	1¾	1	2⅜	1	3	1	3⅝	1	4¼	5
6	1	2¼	1	3	1	3¾	1	4½	1	5¼	1	6	1	6¾	1	7½	6
7	1	4⅝	1	5½	1	6⅜	1	7¼	1	8⅛	1	9	1	9⅞	1	10¾	7
8	1	7	1	8	1	9	1	10	1	11	2	0	2	1	2	2	8
9	1	9⅜	1	10½	1	11⅝	2	0¾	2	1⅞	2	3	2	4⅛	2	5¼	9
10	1	11¾	2	1	2	2¼	2	3½	2	4¾	2	6	2	7¼	2	8½	10
11	2	2⅛	2	3½	2	4⅞	2	6¼	2	7⅝	2	9	2	10⅜	2	11¾	11
12	2	4½	2	6	2	7½	2	9	2	10½	3	0	3	1½	3	3	12
13	2	6⅞	2	8½	2	10⅛	2	11¾	3	1⅜	3	3	3	4⅝	3	6¼	13
14	2	9¼	2	11	3	0¾	3	2½	3	4¼	3	6	3	7¾	3	9½	14
15	2	11⅝	3	1½	3	3⅜	3	5¼	3	7⅛	3	9	3	10⅞	4	0¾	15
16	3	2	3	4	3	6	3	8	3	10	4	0	4	2	4	4	16
17	3	4⅜	3	6½	3	8⅝	3	10¾	4	0⅞	4	3	4	5⅛	4	7¼	17
18	3	6¾	3	9	3	11¼	4	1½	4	3¾	4	6	4	8¼	4	10½	18
19	3	9⅛	3	11½	4	1⅞	4	4¼	4	6⅝	4	9	4	11⅜	5	1¾	19
20	3	11½	4	2	4	4½	4	7	4	9½	5	0	5	2½	5	5	20
21	4	1⅞	4	4½	4	7⅛	4	9¾	5	0⅜	5	3	5	5⅝	5	8¼	21
22	4	4¼	4	7	4	9¾	5	0½	5	3¼	5	6	5	8¾	5	11½	22
23	4	6⅝	4	9½	5	0⅜	5	3¼	5	6⅛	5	9	5	11⅞	6	2¾	23
24	4	9	5	0	5	3	5	6	5	9	6	0	6	3	6	6	24
25	4	11⅜	5	2½	5	5⅝	5	8¾	5	11⅞	6	3	6	6⅛	6	9¼	25
26	5	1¾	5	5	5	8¼	5	11½	6	2¾	6	6	6	9¼	7	0½	26
27	5	4⅛	5	7½	5	10⅞	6	2¼	6	5⅝	6	9	7	0⅜	7	3¾	27
28	5	6½	5	10	6	1½	6	5	6	8½	7	0	7	3½	7	7	28
29	5	8⅞	6	0½	6	4⅛	6	7¾	6	11⅜	7	3	7	6⅝	7	10¼	29
30	5	11¼	6	3	6	6¾	6	10½	7	2¼	7	6	7	9¾	8	1½	30
31	6	1⅝	6	5½	6	9⅜	7	1¼	7	5⅛	7	9	8	0⅞	8	4¾	31
32	6	4	6	8	7	0	7	4	7	8	8	0	8	4	8	8	32
33	6	6⅜	6	10½	7	2⅝	7	6¾	7	10⅞	8	3	8	7⅛	8	11¼	33
34	6	8¾	7	1	7	5¼	7	9½	8	1¾	8	6	8	10¼	9	2½	34
35	6	11⅛	7	3½	7	7⅞	8	0¼	8	4⅝	8	9	9	1⅜	9	5⅝	35
36	7	1½	7	6	7	10½	8	3	8	7½	9	0	9	4½	9	9	36
37	7	3⅞	7	8½	8	1⅛	8	5¾	8	10⅜	9	3	9	7⅝	10	0¼	37
38	7	6¼	7	11	8	3¾	8	8½	9	1¼	9	6	9	10¾	10	3½	38
39	7	8⅝	8	1½	8	6⅜	8	11¼	9	4⅛	9	9	10	1⅞	10	6¾	39
40	7	11	8	4	8	9	9	2	9	7	10	0	10	5	10	10	40
41	8	1⅜	8	6½	8	11⅝	9	4¾	9	9⅞	10	3	10	8⅛	11	1¼	41
42	8	3¾	8	9	9	2¼	9	7½	10	0¾	10	6	10	11¼	11	4½	42
43	8	6⅛	8	11½	9	4⅞	9	10¼	10	3⅝	10	9	11	2⅜	11	7¾	43
44	8	8½	9	2	9	7½	10	1	10	6½	11	0	11	5½	11	11	44
45	8	10⅞	9	4½	9	10⅛	10	3¾	10	9⅜	11	3	11	8⅝	12	2¼	45
46	9	1¼	9	7	10	0¾	10	6½	11	0¼	11	6	11	11¾	12	5½	46
47	9	3⅝	9	9½	10	3⅜	10	9¼	11	3⅛	11	9	12	2⅞	12	8¾	47
48	9	6	10	0	10	6	11	0	11	6	12	0	12	6	13	0	48
49	9	8⅜	10	2½	10	8⅝	11	2¾	11	8⅞	12	3	12	9⅛	13	3¼	49
50	9	10¾	10	5	10	11¼	11	5½	11	11¾	12	6	13	0¼	13	6½	50
Brick Courses	1/8 Inch		1/4 Inch		3/8 Inch		1/2 Inch		5/8 Inch		3/4 Inch		7/8 Inch		1 Inch		Brick Courses

NOTE—If the vertical dimensions of window and other openings are figured to the top of the steel lintel, add the width of one joint to the height of the opening and subtract the width of one joint from vertical space between the openings. *See diagrams on reverse side.*

*This table also gives horizontal dimensions for Rowlock and Soldier Courses.
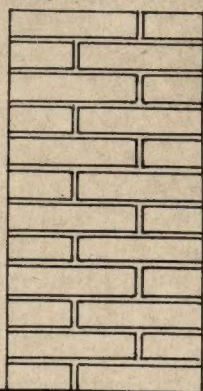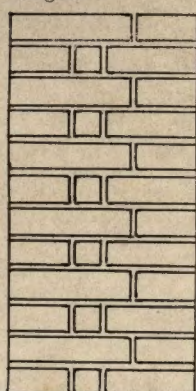
Suggestions for Narrow Vertical Spaces

Diagram 1
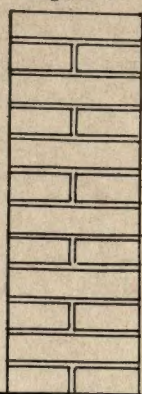
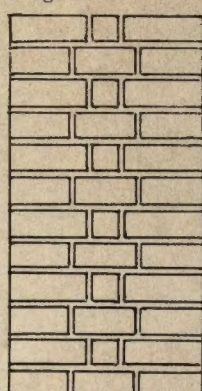*One Brick*

Diagram 2

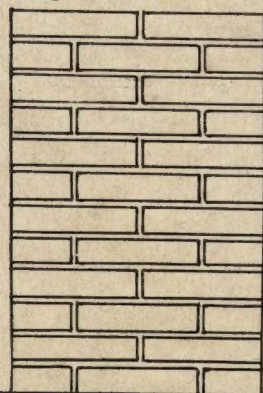*One and a Half Brick*

Diagram 3

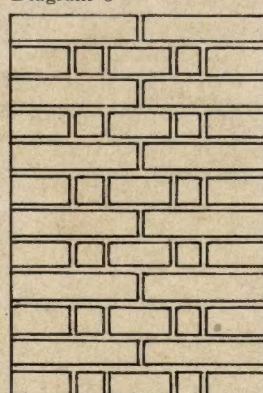*One and a Half Brick*

Diagram 4

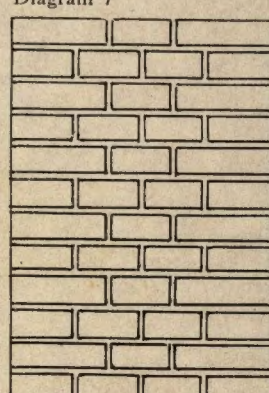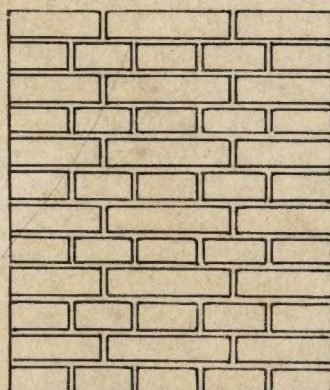*One and a Half Brick*
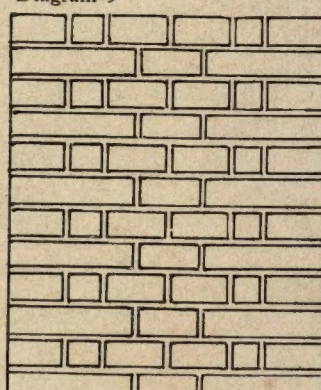
Diagram 5

Two Brick

Diagram 6

Two Brick

Diagram 7

Two Brick
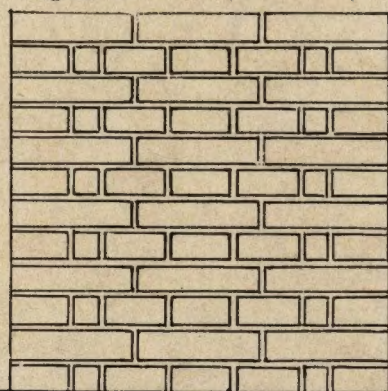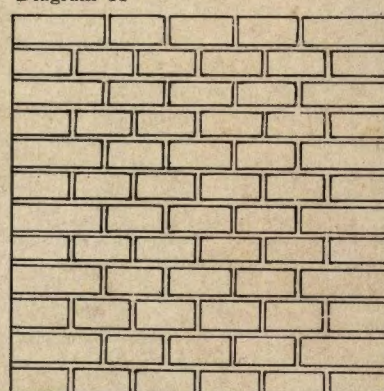
Diagram 8

Two and a Half Brick

Hy-tex
The Standard of Quality in Brick

Diagram 9

Two and a Half Brick

Diagram 10

Three Brick

Diagram 11

Three Brick

Hydraulic-Press Brick Company

St. Louis

Brick Tables

HORIZONTAL DIMENSIONS FOR STRETCHERS
Unit=Stretcher and End Joint (8"+Joint)*

Table II

No. of Units	1/8 Inch Feet	Inches	1/4 Inch Feet	Inches	3/8 Inch Feet	Inches	1/2 Inch Feet	Inches	5/8 Inch Feet	Inches	3/4 Inch Feet	Inches	7/8 Inch Feet	Inches	1 Inch Feet	Inches	No. of Units
		WIDTH OF JOINT WITH STANDARD SIZED BRICK															
Unit		8⅛		8¼		8⅜		8½		8⅝		8¾		8⅞		9	Unit
2	1	4¼	1	4½	1	4¾	1	5	1	5¼	1	5½	1	5¾	1	6	2
3	2	0⅜	2	0¾	2	1⅛	2	1½	2	1⅞	2	2¼	2	2⅝	2	3	3
4	2	8½	2	9	2	9½	2	10	2	10½	2	11	2	11½	3	0	4
5	3	4⅝	3	5¼	3	5⅞	3	6½	3	7⅛	3	7¾	3	8⅜	3	9	5
6	4	0¾	4	1½	4	2¼	4	3	4	3¾	4	4½	4	5¼	4	6	6
7	4	8⅞	4	9¾	4	10⅝	4	11½	5	0⅜	5	1¼	5	2⅛	5	3	7
8	5	5	5	6	5	7	5	8	5	9	5	10	5	11	6	0	8
9	6	1⅛	6	2¼	6	3⅜	6	4½	6	5⅝	6	6¾	6	7⅞	6	9	9
10	6	9¼	6	10½	6	11¾	7	1	7	2¼	7	3½	7	4¾	7	6	10
11	7	5⅜	7	6¾	7	8⅛	7	9½	7	10⅞	8	0¼	8	1⅝	8	3	11
12	8	1½	8	3	8	4½	8	6	8	7½	8	9	8	10½	9	0	12
13	8	9⅝	8	11¼	9	0⅞	9	2½	9	4⅛	9	5¾	9	7⅜	9	9	13
14	9	5¾	9	7½	9	9¼	9	11	10	0¾	10	2½	10	4¼	10	6	14
15	10	1⅞	10	3¾	10	5⅝	10	7½	10	9⅜	10	11¼	11	1⅛	11	3	15
16	10	10	11	0	11	2	11	4	11	6	11	8	11	10	12	0	16
17	11	6⅛	11	8¼	11	10⅜	12	0½	12	2⅝	12	4¾	12	6⅞	12	9	17
18	12	2¼	12	4½	12	6¾	12	9	12	11¼	13	1½	13	3¾	13	6	18
19	12	10⅜	13	0¾	13	3⅛	13	5½	13	7⅞	13	10¼	14	0⅝	14	3	19
20	13	6½	13	9	13	11½	14	2	14	4½	14	7	14	9½	15	0	20
21	14	2⅝	14	5¼	14	7⅞	14	10½	15	1⅛	15	3¾	15	6⅜	15	9	21
22	14	10¾	15	1½	15	4¼	15	7	15	9¾	16	0½	16	3¼	16	6	22
23	15	6⅞	15	9¾	16	0⅝	16	3½	16	6⅜	16	9¼	17	0⅛	17	3	23
24	16	3	16	6	16	9	17	0	17	3	17	6	17	9	18	0	24
25	16	11⅛	17	2¼	17	5⅜	17	8½	17	11⅝	18	2¾	18	5⅞	18	9	25
26	17	7¼	17	10½	18	1¾	18	5	18	8¼	18	11½	19	2¾	19	6	26
27	18	3⅜	18	6¾	18	10⅛	19	1½	19	4⅞	19	8¼	19	11⅝	20	3	27
28	18	11½	19	3	19	6½	19	10	20	1½	20	5	20	8½	21	0	28
29	19	7⅝	19	11¼	20	2⅞	20	6½	20	10⅛	21	1¾	21	5⅜	21	9	29
30	20	3¾	20	7½	20	11¼	21	3	21	6¾	21	10½	22	2¼	22	6	30
31	20	11⅞	21	3¾	21	7⅝	21	11½	22	3⅜	22	7¼	22	11⅛	23	3	31
32	21	8	22	0	22	4	22	8	23	0	23	4	23	8	24	0	32
33	22	4⅛	22	8¼	23	0⅜	23	4½	23	8⅝	24	0¾	24	4⅞	24	9	33
34	23	0¼	23	4½	23	8¾	24	1	24	5¼	24	9½	25	1¾	25	6	34
35	23	8⅜	24	0¾	24	5⅛	24	9½	25	1⅞	25	6¼	25	10⅝	26	3	35
36	24	4½	24	9	25	1½	25	6	25	10½	26	3	26	7½	27	0	36
37	25	0⅝	25	5¼	25	9⅞	26	2½	26	7⅛	26	11¾	27	4⅜	27	9	37
38	25	8¾	26	1½	26	6¼	26	11	27	3¾	27	8½	28	1¼	28	6	38
39	26	4⅞	26	9¾	27	2⅝	27	7½	28	0⅜	28	5¼	28	10⅛	29	3	39
40	27	1	27	6	27	11	28	4	28	9	29	2	29	7	30	0	40
41	27	9⅛	28	2¼	28	7⅜	29	0½	29	5⅝	29	10¾	30	3⅞	30	9	41
42	28	5¼	28	10½	29	3¾	29	9	30	2¼	30	7½	31	0¾	31	6	42
43	29	1⅜	29	6¾	30	0⅛	30	5½	30	10⅞	31	4¼	31	9⅝	32	3	43
44	29	9½	30	3	30	8½	31	2	31	7½	32	1	32	6½	33	0	44
45	30	5⅝	30	11¼	31	4⅞	31	10½	32	4⅛	32	9¾	33	3⅜	33	9	45
46	31	1¾	31	7½	32	1¼	32	7	33	0¾	33	6½	34	0¼	34	6	46
47	31	9⅞	32	3¾	32	9⅝	33	3½	33	9⅜	34	3¼	34	9⅛	35	3	47
48	32	6	33	0	33	6	34	0	34	6	35	0	35	6	36	0	48
49	33	2⅛	33	8¼	34	2⅜	34	8½	35	2⅝	35	8¾	36	2⅞	36	9	49
50	33	10¼	34	4½	34	10⅜	35	5	35	11¼	36	5½	36	11¾	37	6	50
No. of Units	1/8 Inch		1/4 Inch		3/8 Inch		1/2 Inch		5/8 Inch		3/4 Inch		7/8 Inch		1 Inch		No. of Units

NOTE—In figuring the horizontal dimensions of window and other openings, add the width of one joint to the width of the opening and subtract the width of one joint from the piers.

See diagrams on reverse side.

*As in Running, Common, or English Bond. When necessary, any dimension may be adjusted by half units.

Suggestions in Bonds

RUNNING BOND

The smallest dimension here available is one brick or one and a half brick, as indicated by the dotted lines.

By dropping or adding a whole brick, this simple bond is maintained with the corner headers remaining in the same courses. By dropping or adding a half brick, the headers at the corners will come in alternate courses.

COMMON BOND

The smallest dimension here available is one brick and two half brick, or a two-brick length, as indicated by the dotted lines.

The same rule applies here as in Running Bond.

ENGLISH BOND

The smallest dimension here available is two brick, as shown by the dotted line.

To maintain this form of English Bond, the only change possible is to drop or to add a whole brick; but a half brick may be dropped or added, if the form of bond in Diagram 15 will meet the requirement.

ENGLISH BOND

The smallest dimension here available is one brick plus two three-quarter brick; or less desirable, two three-quarter brick, as indicated by the dotted line.

To maintain this form of English Bond, drop or add a whole brick. One-half brick either way will compel the use of Diagram 14.

ENGLISH CROSS BOND

The smallest dimension here available is three brick plus two half brick, or four brick in length, as indicated by the dotted line.

One brick dropped or added will maintain this bond, but the change of a half brick will enforce the use of Diagram 17.

DUTCH BOND

The smallest dimension here available is one brick, two half brick and two three-quarter brick, or three and a half brick in length, as indicated by the dotted line.
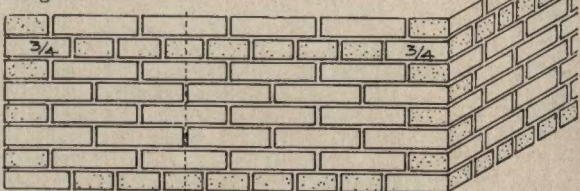
One brick added or dropped will not change this bond, but a half brick either way leads to the use of Diagram 16.
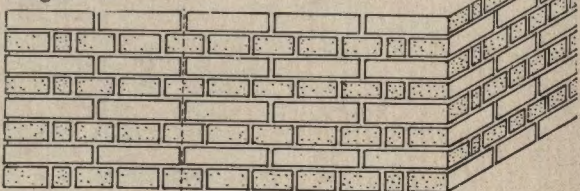

Diagram 12
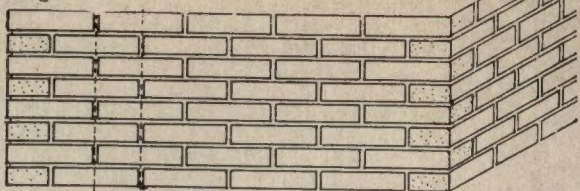
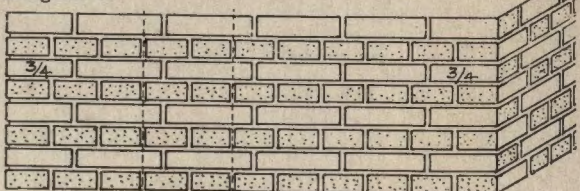*Horizontal dimensions in terms of whole units*

Diagram 13

Horizontal dimensions in terms of whole units
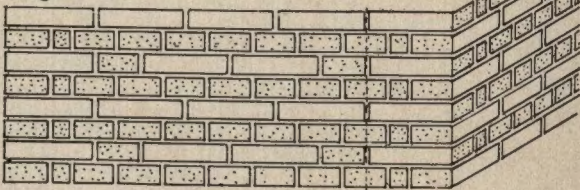
Diagram 14

Horizontal dimensions in terms of whole units
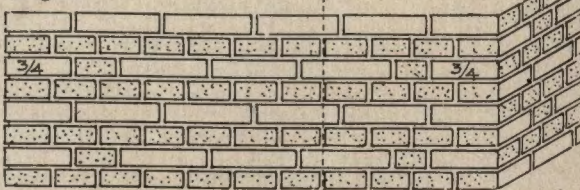
Diagram 15

Horizontal dimensions in terms of whole units plus a half unit

Diagram 16

Horizontal dimensions in terms of whole units

Diagram 17

Horizontal dimensions in terms of whole units, plus a half unit

Hydraulic-Press Brick Company
St. Louis

Brick Tables

HORIZONTAL DIMENSIONS FOR FLEMISH BOND

Table III

Unit=Stretcher, Header, and 2 End Joints (8″+3¾″+2 Joints)*

No. of Units	1/8 Inch		1/4 Inch		3/8 Inch		1/2 Inch		5/8 Inch		3/4 Inch		7/8 Inch		1 Inch		No. of Units
	Feet	Inches	Feet	Inches	Feet	Inches	Feet	Inches	Feet	Inches	Feet	Inches	Feet	Inches	Feet	Inches	
Unit	1	0	1	0¼	1	0½	1	0¾	1	1	1	1¼	1	1½	1	1¾	Unit
2	2	0	2	0½	2	1	2	1½	2	2	2	2½	2	3	2	3½	2
3	3	0	3	0¾	3	1½	3	2¼	3	3	3	3¾	3	4½	3	5¼	3
4	4	0	4	1	4	2	4	3	4	4	4	5	4	6	4	7	4
5	5	0	5	1¼	5	2½	5	3¾	5	5	5	6¼	5	7½	5	8¾	5
6	6	0	6	1½	6	3	6	4½	6	6	6	7½	6	9	6	10½	6
7	7	0	7	1¾	7	3½	7	5¼	7	7	7	8¾	7	10½	8	0¼	7
8	8	0	8	2	8	4	8	6	8	8	8	10	9	0	9	2	8
9	9	0	9	2¼	9	4½	9	6¾	9	9	9	11¼	10	1½	10	3¾	9
10	10	0	10	2½	10	5	10	7½	10	10	11	0½	11	3	11	5½	10
11	11	0	11	2¾	11	5½	11	8¼	11	11	12	1¾	12	4½	12	7¼	11
12	12	0	12	3	12	6	12	9	13	0	13	3	13	6	13	9	12
13	13	0	13	3¼	13	6½	13	9¾	14	1	14	4¼	14	7½	14	10¾	13
14	14	0	14	3½	14	7	14	10½	15	2	15	5½	15	9	16	0½	14
15	15	0	15	3¾	15	7½	15	11¼	16	3	16	6¾	16	10½	17	2¼	15
16	16	0	16	4	16	8	17	0	17	4	17	8	18	0	18	4	16
17	17	0	17	4¼	17	8½	18	0¾	18	5	18	9¼	19	1½	19	5¾	17
18	18	0	18	4½	18	9	19	1½	19	6	19	10½	20	3	20	7½	18
19	19	0	19	4¾	19	9½	20	2¼	20	7	20	11¾	21	4½	21	9¼	19
20	20	0	20	5	20	10	21	3	21	8	22	1	22	6	22	11	20
21	21	0	21	5¼	21	10½	22	3¾	22	9	23	2¼	23	7½	24	0¾	21
22	22	0	22	5½	22	11	23	4½	23	10	24	3½	24	9	25	2½	22
23	23	0	23	5¾	23	11½	24	5¼	24	11	25	4¾	25	10½	26	4¼	23
24	24	0	24	6	25	0	25	6	26	0	26	6	27	0	27	6	24
25	25	0	25	6¼	26	0½	26	6¾	27	1	27	7¼	28	1½	28	7¾	25
26	26	0	26	6½	27	1	27	7½	28	2	28	8½	29	3	29	9½	26
27	27	0	27	6¾	28	1½	28	8¼	29	3	29	9¾	30	4½	30	11¼	27
28	28	0	28	7	29	2	29	9	30	4	30	11	31	6	32	1	28
29	29	0	29	7¼	30	2½	30	9¾	31	5	32	0¼	32	7½	33	2¾	29
30	30	0	30	7½	31	3	31	10½	32	6	33	1½	33	9	34	4½	30
31	31	0	31	7¾	32	3½	32	11¼	33	7	34	2¾	34	10½	35	6¼	31
32	32	0	32	8	33	4	34	0	34	8	35	4	36	0	36	8	32
33	33	0	33	8¼	34	4½	35	0¾	35	9	36	5¼	37	1½	37	9¾	33
34	34	0	34	8½	35	5	36	1½	36	10	37	6½	38	3	38	11½	34
35	35	0	35	8¾	36	5½	37	2¼	37	11	38	7¾	39	4½	40	1¼	35
36	36	0	36	9	37	6	38	3	39	0	39	9	40	6	41	3	36
37	37	0	37	9¼	38	6½	39	3¾	40	1	40	10¼	41	7½	42	4¾	37
38	38	0	38	9½	39	7	40	4½	41	2	41	11½	42	9	43	6½	38
39	39	0	39	9¾	40	7½	41	5¼	42	3	43	0¾	43	10½	44	8¼	39
40	40	0	40	10	41	8	42	6	43	4	44	2	45	0	45	10	40
41	41	0	41	10¼	42	8½	43	6¾	44	5	45	3¼	46	1½	46	11¾	41
42	42	0	42	10½	43	9	44	7½	45	6	46	4½	47	3	48	1½	42
43	43	0	43	10¾	44	9½	45	8¼	46	7	47	5¾	48	4½	49	3¼	43
44	44	0	44	11	45	10	46	9	47	8	48	7	49	6	50	5	44
45	45	0	45	11¼	46	10½	47	9¾	48	9	49	8¼	50	7½	51	6¾	45
46	46	0	46	11½	47	11	48	10½	49	10	50	9½	51	9	52	8½	46
47	47	0	47	11¾	48	11½	49	11¼	50	11	51	10¾	52	10½	53	10¼	47
48	48	0	49	0	50	0	51	0	52	0	53	0	54	0	55	0	48
49	49	0	50	0¼	51	0½	52	0¾	53	1	54	1¼	55	1½	56	1¾	49
50	50	0	51	0½	52	1	53	1½	54	2	55	2½	56	3	57	3½	50
No. of Units	1/8 Inch		1/4 Inch		3/8 Inch		1/2 Inch		5/8 Inch		3/4 Inch		7/8 Inch		1 Inch		No. of Units

WIDTH OF JOINT WITH STANDARD SIZED BRICK

NOTE—In figuring the horizontal dimensions of window and other openings, add the width of one joint to the width of the opening and subtract the width of one joint from the piers.

*If a 3⅛″ header is used, add ⅛″ to respective unit employed and multiply by number of units required for your dimension with the 3¾″ header.

See diagrams on reverse side.

Suggestions in the Treatment of Openings

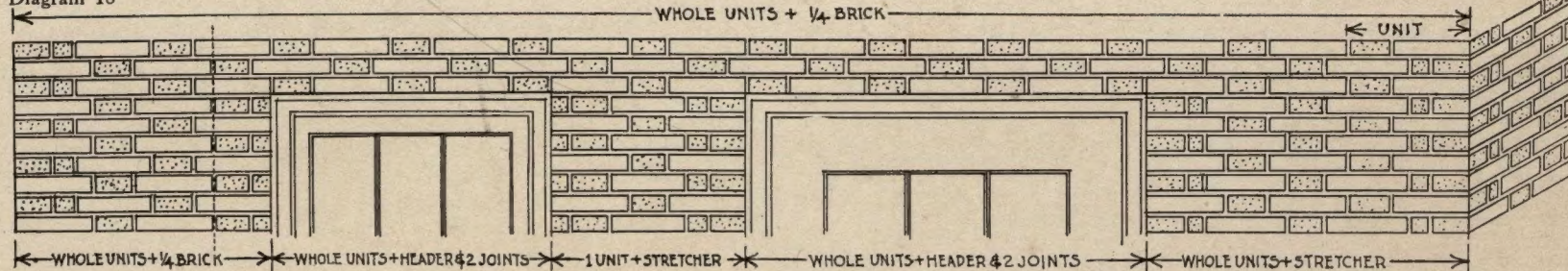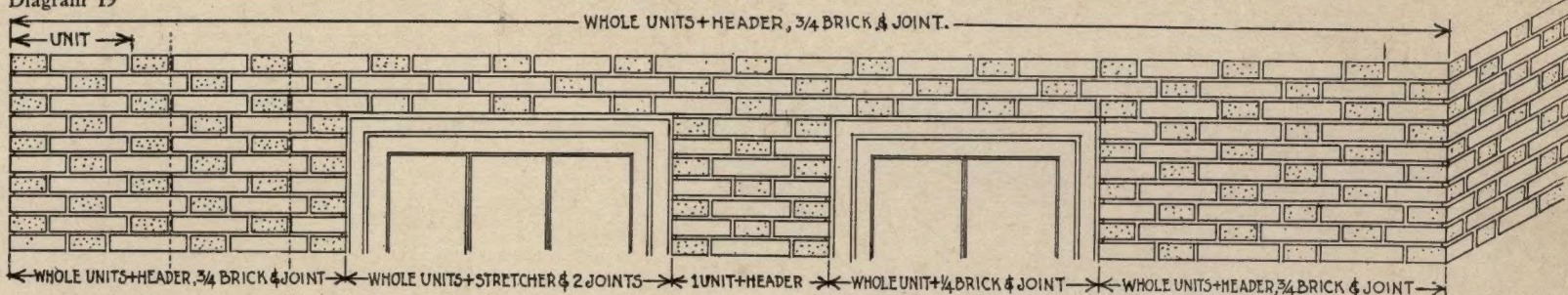**FLEMISH BOND**

The smallest dimension here available is one unit plus one brick, as indicated by the dotted line.

To maintain this form of Bond a unit must be dropped or added. By dropping a half brick, you must use the quoin in Diagram 19.

FLEMISH BOND

The smallest dimension here available is two units plus one header, or, less desirable, one unit plus one header as indicated by the dotted lines.

This form of Flemish Bond is maintained by adding or dropping a whole unit. Adding a half brick will necessitate the use of the quoin in Diagram 18.

Diagrams 18 and 19 show a few of the ways in which Flemish Bond may be finished at corners and openings. As horizontal dimensions in Flemish Bond never work out in multiples of whole units, the finish on corners or openings must be carefully considered.

When dimensioning piers and openings, consideration should always be given to the bond, and so far as possible such frames be adopted as permit a symmetrical finish of the brickwork.

Various symmetrical treatments at jambs may be worked out, but they are not always in harmony with the nature of the bond employed.

You will see in the four examples of openings given above, four possibilities in finishing the brickwork in a symmetrical way, consistently with the nature of the bond itself.

In Flemish Bond, openings or piers can never be laid out in terms of whole or half units, if consistent symmetry on both sides of opening or pier is desired. Some odd fraction of a unit must be included in the dimension. But having once established an opening, it can be shifted or enlarged, without destroying the designed symmetry, by a whole or half unit at a time. But this change of a half unit, that is, three-quarters of a brick, will slightly disturb the symmetry by one course, as shown in Diagram 19.

In English Bond the shift of a quarter brick may be made without affecting vitally the symmetry of an opening. But in English Cross and Dutch Bond, it is important to note that openings and piers must be laid out in whole units to secure symmetry; in consequence of which to preserve symmetry, an opening must be shifted at least a whole unit or one brick.

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Brick Tables

HORIZONTAL DIMENSIONS TWO-STRETCHER GARDEN WALL BOND
Unit=2 Stretchers, 1 Header, and 3 End Joints (8"+8"+3¾"+3 Joints)*
Table IV

No. of Units	⅛ Inch	¼ Inch	⅜ Inch	½ Inch	⅝ Inch	¾ Inch	⅞ Inch	1 Inch	No. of Units
	Feet Inches	Feet Inches	Feet Inches	Feet Inches	Feet Inches	Feet Inches	Feet Inches	Feet Inches	
Unit 1	1 8⅛	1 8½	1 8⅞	1 9¼	1 9⅝	1 10	1 10⅜	1 10¾	Unit
2	3 4¼	3 5	3 5¾	3 6½	3 7¼	3 8	3 8¾	3 9½	2
3	5 0⅜	5 1½	5 2⅝	5 3¾	5 4⅞	5 6	5 7⅛	5 8¼	3
4	6 8½	6 10	6 11½	7 1	7 2½	7 4	7 5½	7 7	4
5	8 4⅝	8 6½	8 8⅜	8 10¼	9 0⅛	9 2	9 3⅞	9 5¾	5
6	10 0¾	10 3	10 5¼	10 7½	10 9¾	11 0	11 2¼	11 4½	6
7	11 8⅞	11 11½	12 2⅛	12 4¾	12 7⅜	12 10	13 0⅝	13 3¼	7
8	13 5	13 8	13 11	14 2	14 5	14 8	14 11	15 2	8
9	15 1⅛	15 4½	15 7⅞	15 11¼	16 2⅝	16 6	16 9⅜	17 0¾	9
10	16 9¼	17 1	17 4¾	17 8½	18 0¼	18 4	18 7¾	18 11½	10
11	18 5⅜	18 9½	19 1⅝	19 5¾	19 9⅞	20 2	20 6⅛	20 10¼	11
12	20 1½	20 6	20 10½	21 3	21 7½	22 0	22 4½	22 9	12
13	21 9⅝	22 2½	22 7⅜	23 0¼	23 5⅛	23 10	24 2⅞	24 7¾	13
14	23 5¾	23 11	24 4¼	24 9½	25 2¾	25 8	26 1¼	26 6½	14
15	25 1⅞	25 7½	26 1⅛	26 6¾	27 0⅜	27 6	27 11⅝	28 5¼	15
16	26 10	27 4	27 10	28 4	28 10	29 4	29 10	30 4	16
17	28 6⅛	29 0½	29 6⅞	30 1¼	30 7⅝	31 2	31 8⅜	32 2¾	17
18	30 2¼	30 9	31 3¾	31 10½	32 5¼	33 0	33 6¾	34 1½	18
19	31 10⅜	32 5½	33 0⅝	33 7¾	34 2⅞	34 10	35 5⅛	36 0¼	19
20	33 6½	34 2	34 9½	35 5	36 0½	36 8	37 3½	37 11	20
21	35 2⅝	35 10½	36 6⅜	37 2¼	37 10⅛	38 6	39 1⅞	39 9¾	21
22	36 10¾	37 7	38 3¼	38 11½	39 7¾	40 4	41 0¼	41 8½	22
23	38 6⅞	39 3½	40 0⅛	40 8¾	41 5⅜	41 2	42 10⅝	43 7¼	23

HORIZONTAL DIMENSIONS THREE-STRETCHER GARDEN WALL BOND
Table V — Unit= 3 Stretchers, 1 Header, and 4 End Joints (8"+8"+8"+3¾"+4 Joints)*

No. of Units	⅛ Inch	¼ Inch	⅜ Inch	½ Inch	⅝ Inch	¾ Inch	⅞ Inch	1 Inch	No. of Units
Unit 1	2 4¼	2 4¾	2 5¼	2 5¾	2 6¼	2 6¾	2 7¼	2 7¾	Unit
2	4 8½	4 9½	4 10½	4 11½	5 0½	5 1½	5 2½	5 3½	2
3	7 0¾	7 2¼	7 3¾	7 5¼	7 6¾	7 8¼	7 9¾	7 11¼	3
4	9 5	9 7	9 9	9 11	10 1	10 3	10 5	10 7	4
5	11 9¼	11 11¾	12 2¼	12 4¾	12 7¼	12 9¾	13 0¼	13 2¾	5
6	14 1½	14 4½	14 7½	14 10½	15 1½	15 4½	15 7½	15 10½	6
7	16 5¾	16 9¼	17 0¾	17 4¼	17 7¾	17 11¼	18 2¾	18 6¼	7
8	18 10	19 2	19 6	19 10	20 2	20 6	20 10	21 2	8
9	21 2¼	21 6¾	21 11¼	22 3¾	22 8¼	23 0¾	23 5¼	23 9¾	9
10	23 6½	23 11½	24 4½	24 9½	25 2½	25 7½	26 0½	26 5½	10
11	25 10¾	26 4¼	26 9¾	27 3¼	27 8¾	28 2¼	28 7¾	29 1¼	11
12	28 3	28 9	29 3	29 9	30 3	30 9	31 3	31 9	12
13	30 7¼	31 1¾	31 8¼	32 2¾	32 9¼	33 3¾	33 10¼	34 4¾	13
14	32 11½	33 6½	34 1½	34 8½	35 3½	35 10½	36 5½	37 0½	14
15	35 3¾	35 11¼	36 6¾	37 2¼	37 9¾	38 5¼	39 0¾	39 8¼	15
16	37 8	38 4	39 0	39 8	40 4	41 0	41 8	42 4	16
17	40 0¼	40 8¾	41 5¼	42 1¾	42 10¼	43 6¾	44 3¼	44 11¾	17
18	42 4½	43 1½	43 10½	44 7½	45 4½	46 1½	46 10½	47 7½	18
19	44 8¾	45 6¼	46 3¾	47 1¼	47 10¾	48 8¼	49 5¾	50 3¼	19
20	47 1	47 11	48 9	49 7	50 5	51 3	52 1	52 11	20
21	49 5¼	50 3¾	51 2¼	52 0¾	52 11¼	53 9¾	54 8¼	55 6¾	21
22	51 9½	52 8½	53 7½	54 6½	55 5½	56 4½	57 3½	58 2½	22
23	54 1¾	55 1¼	56 0¾	57 0¼	57 11¾	58 11¼	59 10¾	60 10¼	23

No. of Units	⅛ Inch	¼ Inch	⅜ Inch	½ Inch	⅝ Inch	¾ Inch	⅞ Inch	1 Inch	No. of Units

NOTE--In figuring the horizontal dimensions of window and other openings, add the width of one joint to the width of the opening and subtract the width of one joint from the piers.

*If a 3¾" header is used, add ¼" to respective unit employed and multiply by number of units required for your dimension with the 3¾" header.

See diagrams on reverse side.

GARDEN WALL BONDS

Garden Wall Bond differs from Flemish in that a group of two, three, or even more stretchers alternate with headers. By shifting the position of the header, a great variety of pattern effects may be secured. Each pattern must be worked out by itself, but once you settle on the start at corners or openings, the tables will give the multiples of whole units in Two and Three-Stretcher Garden Wall Bond.

By a little trouble and a slight change in the position of the opening, a much more attractive result may often be secured at openings. The illustrations show examples of symmetrical treatment at jambs.
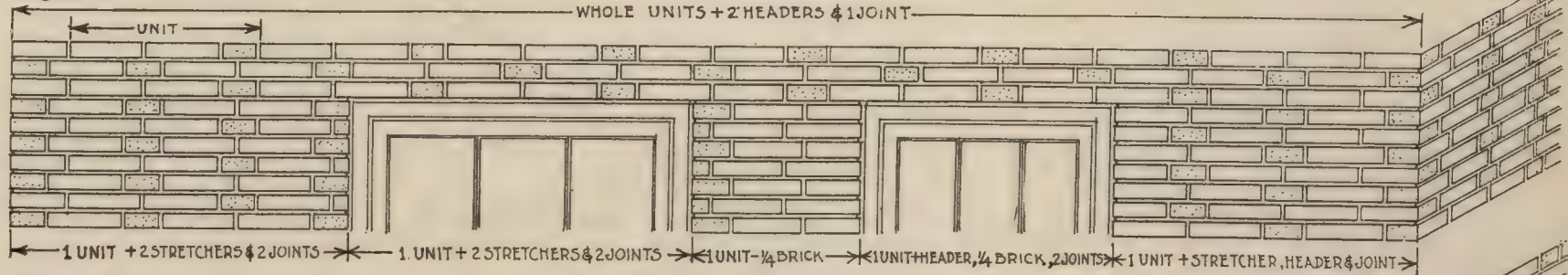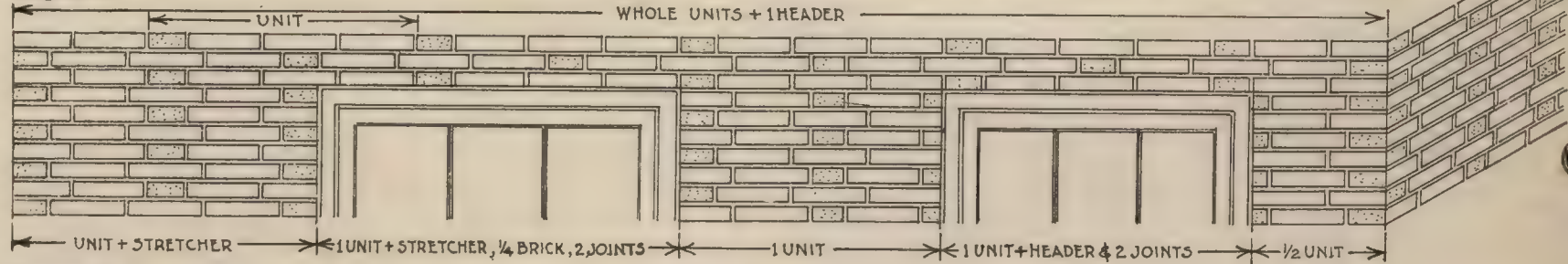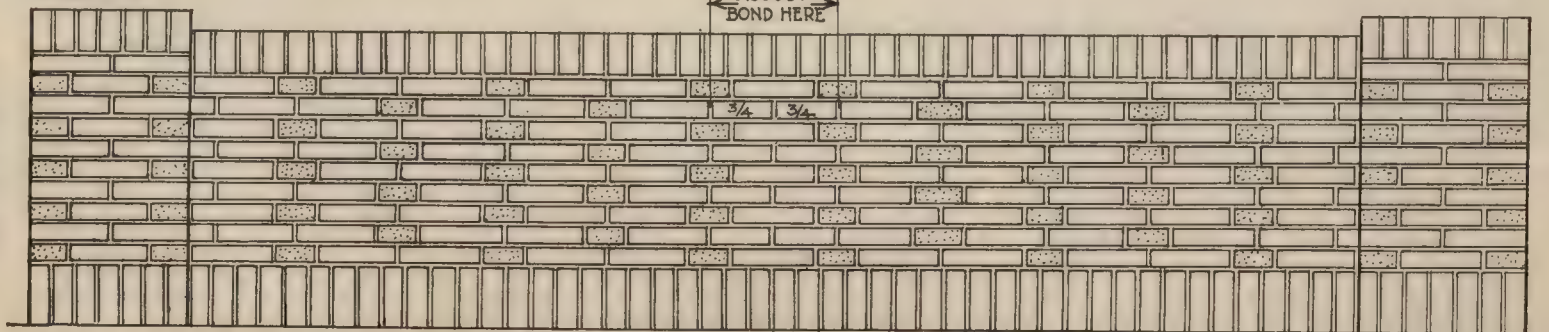
ADJUSTING BONDS

On walls of fixed length, an adjustment of the bond is necessary and is usually made in the middle or ends of the wall. In Diagram 22 the adjustment is made in the middle of the wall by dropping one stretcher from the unit.

Diagram 20

WHOLE UNITS + 2" HEADERS & 1 JOINT

UNIT

1 UNIT + 2 STRETCHERS & 2 JOINTS — 1 UNIT + 2 STRETCHERS & 2 JOINTS — 1 UNIT - ¼ BRICK — 1 UNIT + HEADER, ¼ BRICK, 2 JOINTS — 1 UNIT + STRETCHER, HEADER & JOINT

Diagram 21

WHOLE UNITS + 1 HEADER

UNIT

UNIT + STRETCHER — 1 UNIT + STRETCHER, ¼ BRICK, 2 JOINTS — 1 UNIT — 1 UNIT + HEADER & 2 JOINTS — ½ UNIT

Diagram 22

ADJUST BOND HERE

¾ ¾

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St. Louis

EXPLANATORY

The enclosed vertical and horizontal brick scales are divided at a scale of ¼ of an inch to the foot, the vertical scales giving the height of one brick plus one joint for varying size brick and joint, the horizontal scales, lettered A to G, inclusive, numbered in lengths of one brick, the basis of measurement being one and one-half brick which is given as A—12½", etc. This means that one brick in length, plus one header or half brick, and two joints, equal 12½". By obtaining the average length, width and thickness of the actual brick decided upon and adding to these sizes the width of joint desired, the proper scale to use is easily selected. Example—if the selected brick is 8"x4"x2¼" and a ½" joint is desired, the vertical scale to use would be 2¼" plus ½"=2¾". The horizontal scale would be 8" plus ½" plus 4" plus ½"=13". The slight variations in the horizontal scales from actual brick sizes, plus proposed joint, are immaterial in the building and the nearest scale to such calculated dimensions may be used and the plans figured to agree with the brick tables. These scales may be used in the same manner as the usual architect scales or may be slipped under the tracing paper or cloth and the dimensions transferred by direct tracing.

HYDRAULIC-PRESS BRICK COMPANY

2⅜″	2½″	2⅝″	2¾″	2⅞″	3″
192					
188	180				
184	176	172	164	156	148
180	172	168	160	152	144
176	168	164	156	148	140
172	164	160	152	144	136
168	160	156	148	140	132
164	156	152	144	136	128
160	152	148	140	132	124
156	148	144	136	128	120
152	144	140	132	124	116
148	140	136	128	120	112
144	136	132	124	116	108
140	132	128	120	112	104
136	128	124	116	108	100
132	124	120	112	104	96
128	120	116	108	100	92
124	116	112	104	96	88
120	112	108	100	92	84
116	108	104	96	88	80
112	104	100	92	84	76
108	100	96	88	80	72
104	96	92	84	76	68
100	92	88	80	72	64
96	88	84	76	68	60
92	84	80	72	64	56
88	80	76	68	60	52
84	76	72	64	56	48
80	72	68	60	52	44
76	68	64	56	48	40
72	64	60	52	44	36
68	60	56	48	40	32
64	56	52	44	36	28
60	52	48	40	32	24
56	48	44	36	28	20
52	44	40	32	24	16
48	40	36	28	20	12
44	36	32	24	16	8
40	32	28	20	12	4
36	28	24	16	8	
32	24	20	12	4	
28	20	16	8		
24	16	12	4		
20	12	8			
16	8	4			
12	4				
8					
4					

3⅛"	3¼"	A. 12½"	B. 12¾"	C. 13"	D. 13¼"
144	140	54	53	52	51
140	136	53	52	51	50
136	132	52	51	50	49
132	128	51	50	49	48
128	124	50	49	48	47
124	120	49	48	47	46
120	116	48	47	46	45
116	112	47	46	45	44
112	108	46	45	44	43
108	104	45	44	43	42
104	100	44	43	42	41
100	96	43	42	41	40
96	92	42	41	40	39
92	88	41	40	39	38
88	84	40	39	38	37
84	80	39	38	37	36
80	76	38	37	36	35
76	72	37	36	35	34
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24	20	24	23	22	21
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12	8	21	20	19	18
8	4	20	19	18	17
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		3	2	1	
		2	1		
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